DOCUMENT RESUME

ED 085 566 CE 000 751

AUTHOR	Olson, Jerry C.
TITLE	Career Education: The Role of Vocational Education.
INSTITUTION	Ohio State Univ., Columbus. Center for Vocational and Technical Education.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
REPORT NO	IS-79
PUB DATE	73
NOTE	46p.
AVAILABLE FROM	Product Utilization Section, Center for Vocational and Technical Education, 1960 Kenny Road, Columbus, Ohio 43210
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Career Education; Educational Principles; *Educational Strategies; Learning Experience; *Relevance (Education); Self Concept; Skill Development; *Student Participation; *Vocational Education
IDENTIFIERS	Career Awareness; CCEM; Comprehensive Career Education Model

ABSTRACT

In order to stimulate a position on career education, this paper identifies selected principles on which the majority of educators agree concerning the role of career education and proposes some general roles for vocational education. The focus is on the latter, with general rather than specific roles since variation will be evidenced in every school district. Career education demands strategy development and a commitment to deal effectively with basic problems in American education. As an approach, career education is comprehensive and encourages programmatic changes which are student-centered. In many ways, it draws together the varying aspects of the total educational program because it prepares the young people to learn to live productive and rewarding lives. The report discusses the purpose of career education, the role of vocational education elements of career/vocational education, student participation in vocational education, and career education activity and method for vocational education. The appendix details the elements of career education: educational awareness, self awareness, attitudes and appreciations, decision-making skills, economic awareness, entry level competency, employability skills, and career awareness. (Author/VT)

ED 085566

Information Series
No. 79
VT 020 367

CAREER EDUCATION: THE ROLE OF VOCATIONAL EDUCATION

ERIC

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CLEARINGHOUSE ON VOCATIONAL AND TECHNICAL EDUCATION

CE 000 751

FILMED FROM BEST AVAILABLE COPY

ACKNOWLEDGEMENTS

The profession is indebted to Jerry C. Olson for his scholarship in the preparation of this report. Recognition is also due Gene Bottoms, Georgia State Department of Education; and Aileen Cross, University of Georgia; for their critical review of the manuscript prior to final revision and publication. The development of the publication was coordinated by Paul E. Schroeder, and Paula K. Young provided the technical editing.

Robert E. Taylor
Director
ERIC Clearinghouse on Vocational
and Technical Education

The material in this publication was prepared pursuant to a contract with the National Institute of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official National Institute of Education position or policy.

ED 085566

Information Series No. 79
VT 020 367

CAREER EDUCATION:

THE ROLE OF VOCATIONAL EDUCATION

Jerry C. Olson
Acting Superintendent of Schools
Pittsburgh Public Schools
Pittsburgh, Pennsylvania

ERIC Clearinghouse on Vocational and Technical Education
The Center for Vocational and Technical Education
The Ohio State University
1960 Kenny Road Columbus, Ohio 43210

1973

CONTENTS

Introduction 1
Purpose of Career Education 2
Vocational Education's Role 4
Elements of Career/Vocational Education 9
Student Participation in Vocational Education 15
Career Education Activity and Method for Vocational Education . . . 22
Appendix 31
Bibliography 41

INTRODUCTION

In order to stimulate a position on career education, this paper identifies selected principles on which the majority of educators agree concerning the role of career education and proposes some general roles for vocational education. The focus is on the latter point—general roles rather than specific roles since variation will be evidenced in every school district. Career education demands strategy development and a commitment to deal effectively with basic problems in American education. As an approach, career education is comprehensive and encourages programmatic changes which are student centered. In many ways, it draws together the varying aspects of the total educational program because it prepares the young people to learn to live productive and rewarding lives.

Career education responds to the social, economic and political realities of life today, and it is vulnerable as it confronts a range of orthodox thinking and a conservative heritage. Is career education another dream concept? No. All disciplines have a place in this concept and that place can be determined by the definition of specialists within disciplines.

To insure that career education is available to all students, Wells (1973:369) says certain conditions must exist for career education to have impact:

1) All students must have an equal opportunity to participate in special training programs.

2) If career education is to succeed, we must foster a high degree of commitment to vocational education and guidance among all segments of the community.

The definition of all means career education's intent is to provide career guidance and preparation for every student, with his ability, and life style or aspirations taken into consideration. The development of student potential is vital and gives direction for the design of career education models and activities. White (1969:595) says:

> The school holds a monopoly on the job market. This is the basic fact of our situation. As the monopolizer of further opportunity, the school literally controls the destiny of our pupils. So it is feared, hated, picketed, occasionally loved, often distrusted, always debated, and always subject to the political forces which arise when there is monopolistic control over economic opportunity for all.

Career education is committed to the free enterprise system and the corporate social order. It emphasizes high productivity and a value system that responds positively to the work ethic. For years, these same commitments have been held by vocational education. We really cannot look to history, however, to reflect the future as it relates to career education; there has never been such a massive thrust on a national basis which involved the entire school system.

PURPOSE OF CAREER EDUCATION

Career education (1) encourages change, (2) fosters adjustments, (3) emphasizes flexibility, and (4) institutes alternatives within the entire educational system. These same four thrusts must be the rallying cry for vocational education!

Encourage Change

Many school systems do not respond quickly to change because they are staffed with people who advocate change but are reluctant to change.

Implementing career education will require significant changes in the total educational program. The forces which have initiated career education are twofold. One source is the impact of technology which has set in motion great economic, social, and cultural changes. This impact has resulted in a highly mobile population, greater discrepancy in the economic discretionary ability of social classes, and urbanization. The nature and distribution of occupations has been changed. The second change force is the realization that the career preparation for a significantly large number of students will not be via the college route and that public education will be called upon to provide career preparation for an ever-expanding cadre of individuals.

Foster Adjustment

Change in today's society makes learning to adapt basic skills to new situations even more important. Academic preparation alone will not suffice. Learning for, about and from the world of work is an integral part of the educational system. It cannot be treated in a piecemeal or fragmented way. Snobbish academic prejudice, paternalism and the favoring of college preparatory programs are inhibitors of change.

It is not necessary to draw definite lines between each of the functions and the disciplines comprising the educational system. It will take a composite of the disciplines to fulfill a complex set of expectations and goals in career education.

Emphasize Flexibility

Education should be viewed as a part of a developmental process which sequentially programs information and activities for a selected period of time for each individual. This sequencing should be highly personalized, meeting the learning style and developmental stage of the individual. Programs that enable the individual to utilize his own personal style and to integrate his personality into a group must be planned and developed. They will not just happen.

The school must become adaptable enough to accommodate the tasks set for it by society. A failure-proof system must be devised whereby all students are educated for the many future roles they will play in both the social and economic spheres. Programs must be open-ended in nature so that education will follow a "cradle to grave" philosophy in which an individual can leave school with a certain level of skill and still have the opportunity to return to upgrade this skill, or to start on a new learning series if circumstances so direct. We cannot afford to maintain the neat educational categories (academic, general, vocational, and terminal) which many schools have perpetuated. Categories are limiting strategies rather than adapting strategies.

Institute Alternatives

Originally, education was for the cloistered few, but now a growing awareness of the need for greater flexibility in being able to accommodate students with different learning styles is becoming prevalent. Ginzberg (1971:371) reflects the universal education movement:

> We desperately need new rites of passage from adolescence to adulthood, from school to work. But it will require a major national effort to design the new structures to bring this about. But we will never put forth the effort unless we recognize the urgency of undertaking such an ambitious reform program.

The program that Ginzberg is advocating is certainly representative of what is envisioned for career education. To accomplish this goal, Wayson (1971:344) offers:

The key concepts for developing the school were: involvement, problem solving, accountability, and continual growth. It is doubtful whether any significant or lasting advancement can be made in public schools without attending to these fundamental dynamic qualities of organizations.

Although many good things are happening in the educational system, voids remain in the fulfillment of goals for significantly large numbers of students. In "Career Education—A Model for Implementation," the U.S. Office of Education defines the central purpose of career education as follows: ". . . to prepare the young to accept the reality of constructive pathways to adulthood, to help them engage these pathways successfully, and to assist them in finding personal relevance in the life options available to them."

Any definition of flexibility must convey the idea of movement in the educational system. Educators are just beginning to understand how to live with educational problems by creating alterna ives and changing the existing system.

Vocational education has met the needs of that group of students who chose or were counseled into vocationally oriented programs. Such a form of selectivity has filtered out students who could benefit from vocational programs. As career education becomes operational, vocational educators will be called upon to serve a more diverse student population with varying ranges of ability and career aspirations. Is vocational education prepared for such diversity and expansion?

VOCATIONAL EDUCATION'S ROLE

Vocational education and vocational guidance programs have stood as lightning rods for criticism, primarily because of their practical nature.

Hoyt (1972:12) illustrates the role of the educational system in the community and then identifies the role of career education within the educational system. The relationship between vocational education, career education and the educational system is illustrated in Figure 1.

Separation between vocational education and the rest of the educational world is being bridged through the career education concept. Too many artificially contrived differences between academic education and vocational education have occurred in the past. Likewise, within the field of vocational education, artificial differences have been instituted. In most cases, these have represented arbitrary and convenient distinctions without actual differences

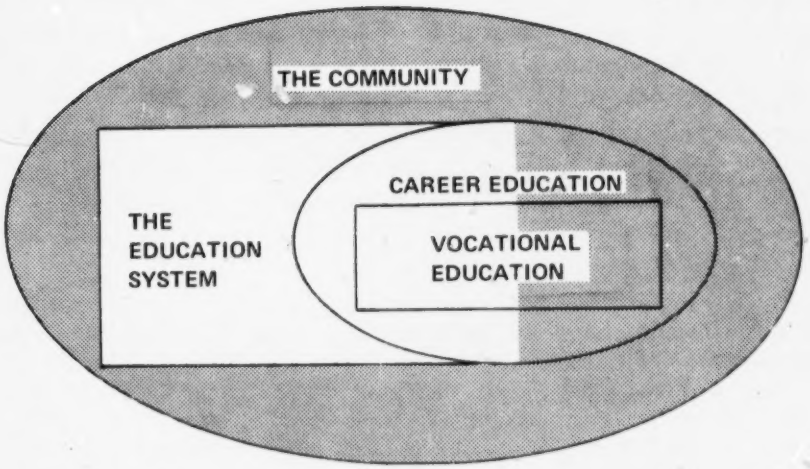

Figure 1. Career Education's Place in Education

and have tended to confuse educators, the business/industrial community, students, and parents.

Efforts have been made over the years to institute vocational education programs into the mainstream of education. These have fallen short of expectation for many reasons: (1) unfavorable image, (2) union rejection of graduates, (3) industrial and societal pressures for a generally educated person, (4) biased credentialing standards, (5) existence of apprenticeship alternatives, (6) financial problems, (7) desire of both academic and vocational educators to remain separate, and (8) apathy. The change required in vocational education for it to become an integral part of career education tampers with many people's cherished value systems. Vocational education's response to career education concepts must go far beyond preparation in the manipulative skills. The program offerings envisioned for vocational education must include but not be limited to trade and craft oriented activities. A functional definition of vocational education should include the practical application and laboratory features of many activities carried on by the disciplines of social studies, science, reading, math, art, and music. By combining the practical aspects of seemingly autonomous and discrete disciplines in unique ways, new practical offerings can emerge which can dramatically change the role of vocational education in grades 6-12 and beyond. In addition, many new practical non-verbal activities and field experiences can be included in K-5 program offerings.

Vocational educators have said for years that, given the constraints on the budget, they were serving as many students as they could. By serving relatively limited numbers of students, vocational educators became selective; however, now they are being forced to change style, method, and technique to provide leadership for expanded roles in response to goals established for career education. Serving a highly restricted sample of the total student population is not the role of vocational education in career education. Marland (*American Education*, 1971) was asked: "On several occasions recently you have talked about career education. What is the difference between career education and vocational education?" Marland's response is as follows:

> Speaking just in terms of the schools, career education—as I see it— would embrace vocational education but would go a good deal further. I suppose all of us are familiar with the situation of a young person finishing high school or even college with no idea of what kind of work he would like to follow. This is a depressing proposition for the student and in my view a failure on the part of the schools. So what I would hope for is a new orientation of education—starting with the earliest grades and continuing through high school—that would expose the student to the range of career opportunities, help him narrow down the choices in terms of his own aptitudes and interests, and provide him with education and training appropriate to his ambition. In many cases his training would certainly involve the "manipulative" skills commonly associated with vocational education. It would be strongly and relevantly undergirded by education in the traditional academic subjects.

Pierce, Deputy Commissioner for Career Education, also stresses that vocational education is a necessary component of Career Education (*American Vocational Journal*, 1973: 27). He describes career education as follows:

> It is an attitude, an educational philosophy that must permeate the thinking of every teacher, counselor, administrator, board member, and parent in this country. It is a commitment to do everything possible to see to it that the educational system prepares all children, youth and adults to function at the maximum of their ability when they enter the labor market.

Evans (1971:2) identifies the objectives of vocational education as: "(1) meeting the manpower needs of society, (2) increasing the options available to each student, and (3) serving as a motivating force to enhance all types of learning." The accomplishment of these goals and the preparation of every youngster for an entry-level occupation, whether he attends college or not, can be viewed as the polestars for a reformed vocational education. Vocational educators can expect their programs, services, ideas, opportunities and financial obligations to be severely taxed until their new role in career education becomes a functional one.

Vocational education must be viewed in a broader realm than the narrow skill trade competencies developed in the past. Often, the solutions to career education for individual students may require team teaching, sharing facilities, and interrelating pure scientific principles to practical problem solving situations. By restructuring the content and instituting many innovative techniques, the educational programs should lead to the development of employability skills and ultimately to career placement.

The AVA Task Force reported on several issues in career education (*American Vocational Journal*, 1972:14). One issue was the role of vocational education in career education:

> The placement and importance of vocational education in the total context of career education is of concern to many vocational educators. Will present and emerging programs of vocational education that concentrate on intensive occupational preparation be retained?
>
> Suggested AVA Position: AVA should reaffirm a commitment to a broad definition of vocational education and should support the retention of vocational education as a significant and identifiable component of career education.

The Task Force members of the AVA were saying: (1) that vocational preparation needs to be guided by vocational principles and practices which have been responsible and accountable to the students it served in the past, and (2) vocational education should remain the practical thrust in the salable skill development aspects of the educational system. One major problem vocational education faces is expanding that function of serving many more students without sacrificing quality of performance.

The problem of diversity in vocational education must also be attacked. One approach focuses on initiating programs which employ the job-cluster approach. Using clustering techniques results in much less emphasis being placed on the development of skills and a greater emphasis being placed on the developing and adapting of knowledge and general skills. This technique aligns with the philosophical stance of career education and is applicable at different grade levels. Such an approach would provide the individual with flexibility in being able to enter or job-shift into many more occupational areas.

Energies should also be directed to determine the type of program and strategies to be used in providing exploratory and prevocational education. Realignment of the purpose and perspective of vocational education to meet that end has yet to be accomplished, but many innovative ideas centering on this topic deserve to be given a fair trial.

Limiting vocational education to a secondary and post-secondary function would have serious and negative implications for career education, which clearly is heavily dependent on

a new, revitalized vocational education program at all levels, but particularly at the secondary level (grades 6-12). An expanded role is essential for vocational education but this does not mean merely enrolling more students in a vocational track. It means providing an educational structure which places vocational education on an equal basis with other components of the educational enterprise. As a new vocational education thrust evolves in response to the press for change, its purpose and scope will clearly change and may not be as universal nor as limited in scope as in the past. It is being challenged by society in general, and students in particular, to play some or all of the following roles:

1) Implement programs that interpret technology and its implications at all grade levels.

2) Place precise technical knowledge into a broader social context that differs for each individual.

3) Manipulate the traditional roadblocks and sacred cows and manage vocational components of a dynamic educational system.

4) Choose learning activities which will enable the individual, regardless of age, grade level or background, to (a) develop an understanding of himself, (b) increase his skill and earning potential, and (c) acquire knowledge that is salable in the working world.

5) Meet two distinctly different functions–service to a technically-oriented society and service to a human-oriented society.

6) Emphasize individual flexibility and the upgrading of this country's resources.

7) Implement effective program management. The management function involves coordinating and operating human and material resources related to the vocational education process. Relevant factors, acting as inputs to the process, include job and function analysis, course design, scheduling, instructional techniques, laboratory design and staff development.

8) Enrich the developmental process which takes place during a time span, different for each individual, and shows no antagonism between learning through observation and action and the acquisition of knowledge by more cognitive means.

9) Provide vocational education programs where interests can be advanced, motivation instilled, confidence gained, and career aspirations raised.

ELEMENTS OF CAREER/VOCATIONAL EDUCATION

In order for the role of vocational education to be more clearly defined, it is necessary to examine more closely the role of career education in the school. An in-depth examination of this model has been underway at The Center for Vocational and Technical Education (CVTE), The Ohio State University, under the sponsorship of the National Institute of Education. This study produced a school-based Comprehensive Career Education Model (CCEM). Eight areas of educational experience have been identified as the basic elements of career education. Miller states: ". . . these have been accepted as the elements which operationally define the program of the school-based Comprehensive Career Education Model, and as such they constitute a series of untested hypotheses" (Miller, 1972:8).

> . . . For a functional career education program to be developed, that program must be defined in terms of specific goals and objectives. To achieve this specificity for the CCEM, the eight previously identified elements were used as one dimension of a Matrix. Along the other dimension of the CCEM Matrix were arrayed the grade levels from grades K through 12 (Miller, 1972:13).

The eight elements of career education identified in the Matrix each lead to specific element outcomes as illustrated in the Matrix description (see Figure 2).

It is felt that if the new role for vocational education is to function equally with other educational components, the role for vocational education could be based on the elements identified in the Comprehensive Career Education Matrix. They may not be the final elements to be included in career education and, as a matter of fact, (Miller, 1972:8) states they ". . . constitute <u>one set</u> of education experiences . . ." but they are a base line from which one can move in determining a new role for vocational education. Each of the elements in career education will be examined briefly to identify implications and outcomes for vocational education. It is assumed from the outset that these are the basic conceptual elements of career education.

Educational Awareness Leading to Educational Identity

Students need to recognize a definite correlation between one's education and social/economic changes. The sophistication of technology and the demands for more highly skilled individuals has been expanding dramatically over the years. An educational system committed to bringing this awareness before students must correlate the separate subject offerings and, in so doing, move toward interdisciplinary instruction. The curriculum should be

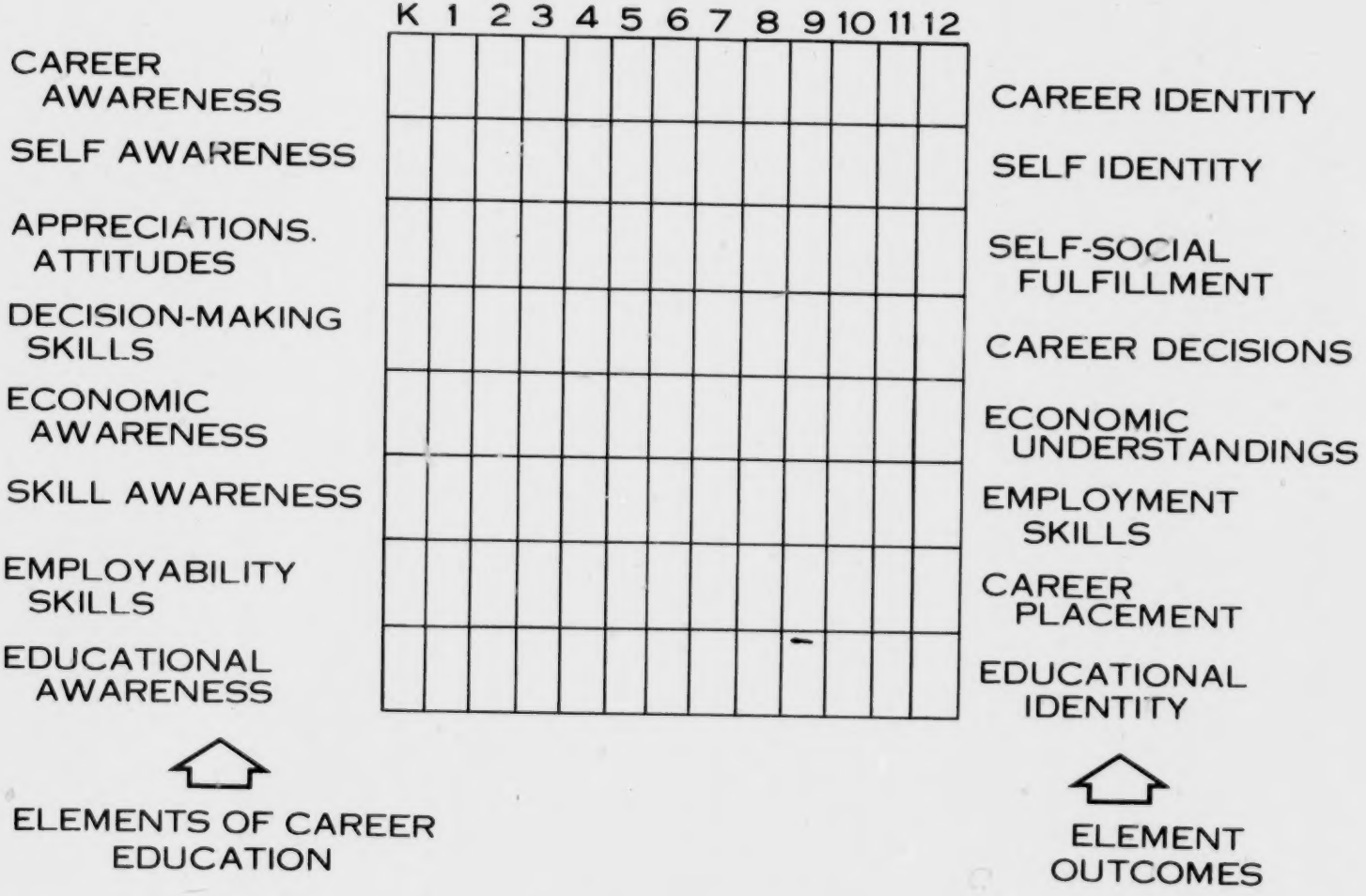

Figure 2. CCE Matrix

flexible enough to permit the student to have experiences that not only enhance his learning but further his vocational development as well. (Reinhart, 1972:6) states:

> The emerging careers curriculum purports to integrate the entire school curriculum–academic, general and vocational–in such a way that all education will be functionally related to the performance of career roles. The careers curriculum, it is proposed, will become the vehicle for carrying the load without diminishing the educational objectives of academic curricula.

Thus, it is understandable that career education can be achieved through the teaching of reading skills, mathematics and virtually every educational discipline comprising the academic curriculum. We learn to read because we have a need or interest in utilizing the printed word. We learn to do mathematics because it allows the individual to manipulate numbers that are important to him. As academic subjects acquire relevance, achievement is improved. In other words, if learning is not to be just for learning's sake, there must be an educational awareness of the meaning these programs can have for students. Interestingly, Crary (1969: 352) feels that "The vocational education program in the American school is not nearly as exclusively vocational as the nonvocational program." Ongoing vocational program offerings that fall short of providing relevancy for students must be improved. As vocational education expands to accommodate the practical aspects of academic program offerings, the development of realistic and practical implications that have meaning for students must be included. Education must be applicative, that is, it must provide means for solving the student's needs throughout the entire educational program. It must be meaningful, utilitarian and relevant for all students. Stanley Rutenburgh predicts that the average 20-year old man in the work force today can be expected to change jobs six or seven times during his remaining working life. Assuming this prediction comes true, the impact of education on the educational awareness of each student can best be described as "all carrot and no stick."

Self-awareness Leading to Self Identity

Self-awareness is the process of making some sense out of the sum total and variety of sensory impressions, ideas and stimuli to which the individual human consciousness is exposed. A student who is aware of self, and understands his needs and interests will be more able to benefit from a career education program than a student lacking self-awareness. Herr (1972:7) states: "Since personality development and career development seem to be intimately tied together, some theorists also view career development as a continuing attempt to implement one's self-concept or to express one's personality." The ultimate goal of career education centers on the development of individuals with stable work traits who can adjust to and benefit from their occupational roles in society. The development of the traits which

lead to that type of self adjustment are part of career education and are part of the "fully capacitated individual."

Often we find that youth will not work or learn unless they are in competition with their peers. They appear to have no value systems nor educational standards as a base for self-awareness. It is imperative that the student have knowledge of his alternatives, interests, and capabilities to understand himself and make lasting career choices.

The model for today's successful person is the successful person of yesterday. Crary (1969:363) says: ". . . what the person has been, he is; what he is, he will be." In determining one's own value system and understanding one's self, one has to make tradeoffs and decide what value order will be his. We cannot presume everyone will hold the same value system, nor likewise can we pursue all values at the same time. So career education must be based on a developmental process that continually leads to self-awareness and self identity.

Attitudes and Appreciations Leading to Self, Social Fulfillment

Career education not only provides for skill development and information but also helps the individual develop attitudes about the personal, social, psychological and economic significance of work. It helps him develop fundamental attitudes which later will enable him to make necessary decisions. A student must be exposed to a variety of forms of work values so that he will know and understand those that exist. This will help the individual integrate work values into his own personal value system. Osipow (1972:11) states:

> Career development is essentially a socially bound process; that is, some of the events and influences on career development are culture, economy, geography, sex, social class membership, age, and race. The particular combination of these that effect [sic] an individual influence his values, opportunities, the capabilities he develops, and the expectancies he generates about his place in the world of work.

The values placed on the world of work in a functionally integrated society must have a common base and a common understanding by individuals comprising that society. In this way, the values inherent in a work-oriented society are integrated into each individual's personal value system.

Decision-making Skills Leading to Career Decisions

Career education establishes a ground-work for decision-making long before the student reaches any one of several decision points related to careers. During the senior high school

years, the student will be making certain career direction setting decisions based on what he knows about his interests, aptitudes and abilities in relation to various careers. In many instances, however, the current school system actually discourages student decision-making. Career development theory clearly indicates that the ability to make sound decisions is based on learned behavior. Our society is in desperate need of individuals who can exhibit decision and policy making ability. The rational creative process leading to the purposeful design and implementation of decisions is a process that must be incorporated in the public school setting. Osipow (1972:14) says: "In point of fact, people are more likely to end up doing what they are capable of doing than they are to end up doing what they like to do if there is some inconsistency between the two."

Economic Awareness Leading to Economic Understanding

The world of work in the economy can really be split into two major parts: the world of the few hundred technically dynamic massively capitalized and highly organized corporations as compared to the thousands of small, traditional businesses. The student must be given experiences that lead to an awareness of these vastly different types of business/industry operations. Vocational education has the information to provide and stimulate such an awareness of work and economic operations. Career education, on the other hand, should stimulate the curiosity of the individual, identify the economic benefits of an education, and provide experiences that develop the individual's capabilities to adjust to change.

Entry-level Competency Leading to Employment Skills

Osipow (1972:14) states:

> In a way, interests serve as a predictive 'ceiling,' abilities a predictive 'floor.' There is some evidence to indicate that preferences, in fact, are influenced by success . . . instead of the reverse.

It has been said that success breeds success. It is the general feeling that entry-level competencies are an essential part of career education, not only because they enhance the individual's own awareness of himself but also because they provide the opportunity for the individual to find employment and to continue to develop his employment skills while working.

It is through vocational education, viewed on the broadest terms, that employability skills can be delivered. Effective and relevant programs lead to employment for those who seek employment. They are also comprehensive enough to enable a student to further his

education if he so desires. It is common knowledge that the demand for skilled manpower is increasing, that the amount of technical training required for employment is increasing, and that the prestige of jobs requiring specialized training is increasing with changes in technology in the local labor market. Olson states (1970:132):

> All of these factors blur the distinction between the need for education that prepares the student to earn a living in certain fields, and for education that prepares him to deal with logical, ethical, and esthetic problems.

For some students, career education will develop immediate skills for employment; for others, a set of avocational experiences; and for many more the experiences will broaden the alternatives and allow for vertical mobility within a chosen occupational cluster.

Employability Skills Leading to Career Placement

The student's ability in specific viable skills enables him to demonstrate evidence of a change in his attitudes, actions and life style. It is possible to make some very accurate predictions about the characteristics of an individual and about the type of occupational environment that might be suitable to him. The ability of the educational system to predict the environment and to provide opportunities for the individual to participate in both basic and vocational education are functions of career education.

A range of program options are essential to prepare individuals for employment commensurate with their abilities. If the objective is to prepare technicians, it is vital that we determine the qualifications needed and offer programs which will prepare the student for that type of employment. It may be desirable to develop employability skills by building the entire general education curriculum around a vocationally oriented core. This would, indeed, be a way of melding vocational education and career education. Such a program might be attractive not only to the unmotivated student but also to the student who is motivated to see the relationship of the courses.

Career Awareness Leading to Career Identity

It is clear that the old education maxim, "Give students a thorough academic grounding and careers will take care of themselves," is no longer appropriate. In America, although many careers do just happen, there are advantages if they can be planned. Career education, which is not a substitute for vocational education, general education or college preparation, but a blending of all, comprises a planned attempt to develop careers and career ladders for

each student. Career ladder approaches are essential in order that students develop both short and long-range career goals. If career ladders are to be effectively implemented, then vocational educators must not only be concerned with skilled occupations but with the entire range of occupations available.

STUDENT PARTICIPATION IN VOCATIONAL EDUCATION

As stated earlier, conceptual career education elements (1) encourage change, (2) foster adjustment, (3) emphasize flexibility, and (4) institute alternatives in the entire educational system. By superimposing career education goals which encourage change and foster adjustments over the eight basic conceptual elements, it is felt that the charges for vocational education as they relate to the eight basic conceptual elements can be identified. For the purpose of this document, eight basic conceptual elements of career education were identified. These are:

1) Educational Awareness

2) Self Awareness

3) Attitudes and Appreciations

4) Decision-Making Skills

5) Economic Awareness

6) Entry Level Competency

7) Employability Skills

8) Career Awareness

Changes and adjustments are needed in the entire educational system, and in vocational education specifically. The intent here is not to limit the role of vocational education by emphasizing only the grades traditionally served through vocational education in the educational system. Figure 3 is an adaptation of information provided by Goldhammer and Taylor (1972:147), and Morgan and Bushnell (n.d.:7A) and attempts to identify proportions of time, goals and roles by grade level. It is a composite of several peoples' thinking which, while it may not be the ultimate plan of any career education design, is a way of viewing the place of vocational education in career education from grade K through 12 and beyond.

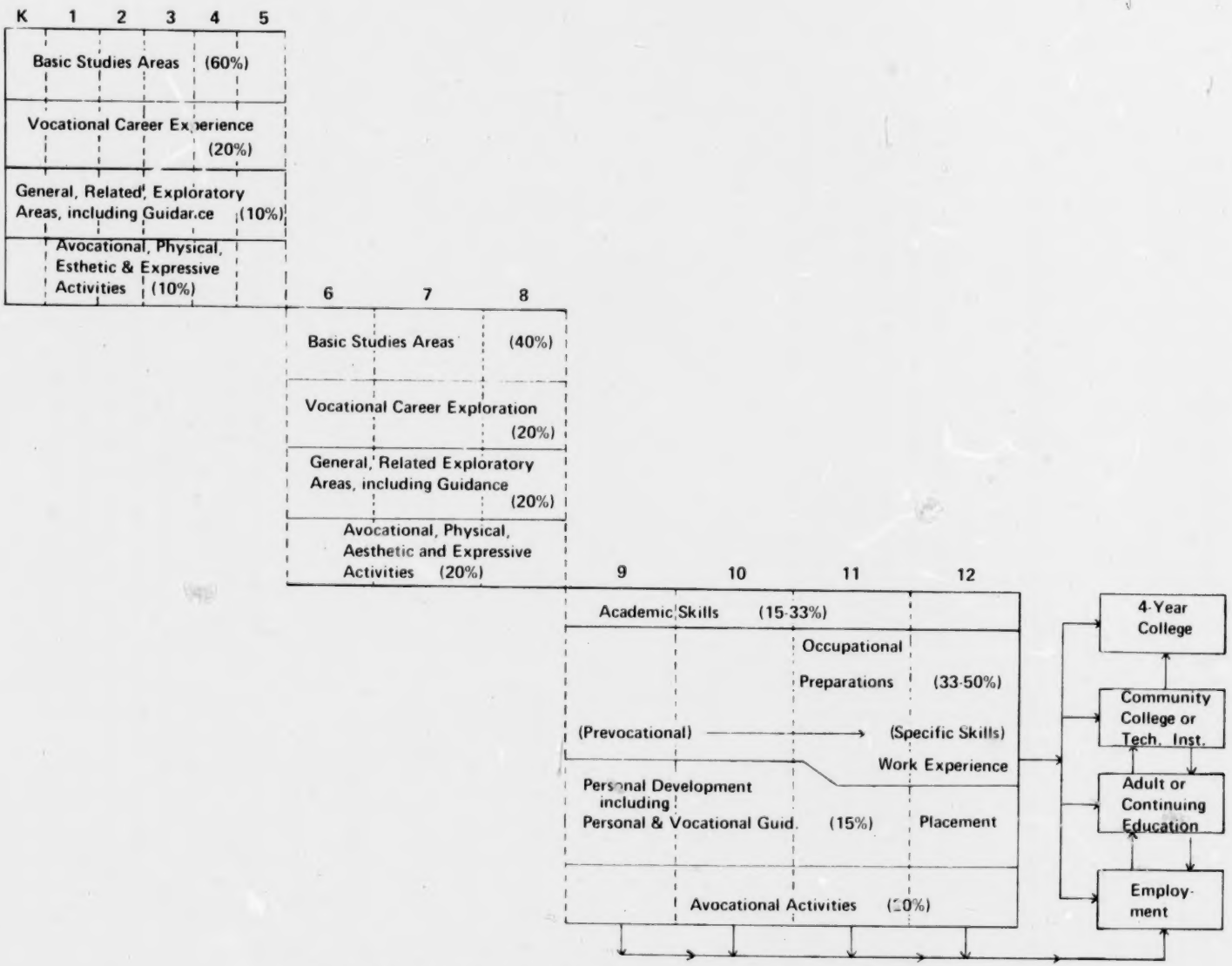
K 1 2 3 4 5
Basic Studies Areas (60%)
Vocational Career Experience (20%)
General, Related, Exploratory Areas, including Guidance (10%)
Avocational, Physical, Esthetic & Expressive Activities (10%)
6 7 8
Basic Studies Areas (40%)
Vocational Career Exploration (20%)
General, Related Exploratory Areas, including Guidance (20%)
Avocational, Physical, Aesthetic and Expressive Activities (20%)
9 10 11 12
Academic Skills (15-33%)
Occupational Preparations (33-50%)
(Prevocational)
(Specific Skills)
Work Experience
Personal Development including Personal & Vocational Guid. (15%)
Placement
Avocational Activities (20%)
4-Year College
Community College or Tech. Inst.
Adult or Continuing Education
Employ-ment

Figure 3. Focus of Vocational Education Roles in Career Education Grade K-12 and Beyond

The major focus in career education which encourages change and fosters adjustments in the system is based on student participation. This emphasis will be influenced by the school system's commitment, which in turn will determine the vocational education commitment at each grade level. Figure 4 depicts a "student participation" rating scale which will enable the reader to assess his school system's commitment to career education by grade level. This, in turn, should help determine the relationship of that commitment to the role that vocational education can play at any grade level within any given school system.

The rating scale and the items to be rated give an indication of the strength of the need or desire to change and the ease of playing various roles for school systems generally, as well as for vocational education roles specifically. The reader should indicate the most accurate rating for the vocational education commitment with the square; and then determine by circle placement the rating for the school system. It is thought that there is a direct correlation between the two and that it would be extremely difficult for either commitment to be fulfilled to a high degree without a high commitment from the other. The question to be kept in mind as the rating scale is completed is: "Are the vocational education programs eligible to be considered on an equal basis with other disciplines in fulfilling the objectives of career education?" The rating scale provides an assessment of the emphasis that is peculiar to career education in any district. An in-depth analysis of the problems implied can then be undertaken.

Grades K-5—Career Awareness

The U.S. Office of Education in "Career Education—A Model for Implementation" (n.d.) defines the objectives for grades K to 6 as: (1) development of pupil attitudes about the personal and social significance of work, (2) development of each pupil's self awareness, (3) development and expansion of the occupational awareness and the aspirations of the pupils, and (4) improvement of overall pupil performance by unifying and focusing basic subjects around a career development theme. Significant curriculum changes are expected in K-5 subject offerings and, accordingly, substantial improvements are expected in the guidance and counseling functions performed in the classrooms. Vocational educators should be available as resource people to: (1) enrich the K-5 career education programs, (2) serve as consultants when needed, and (3) encourage appropriate curriculum changes in the K-5 program which enhance the vocational education role from 6 through 12 and beyond.

Grades 6-8—Career Exploration

In grades 6 through 8, career preferences by students are still broadly based, relatively undetermined and have much room for change. One of the roles is to relate the world of

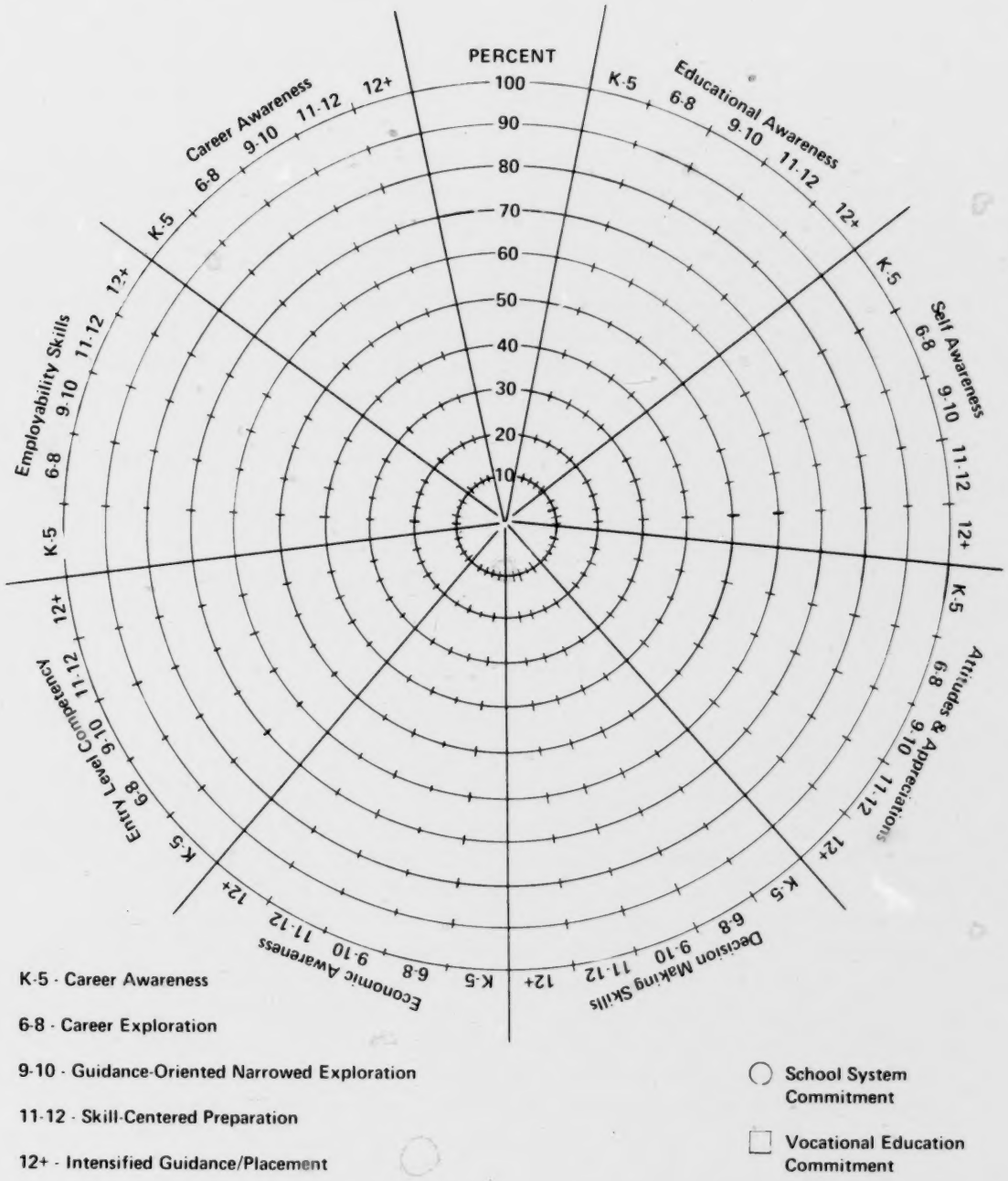

Figure 4. Career/Vocational Education
Student Participation Rating Scale

work to career options. Experiences center on general concepts that are the most stimulating, interesting, and easily understood. By dealing with a large number of diverse examples, students have an opportunity to grasp principles. By working with a variety of examples, students formulate controlling ideas and then try them on new examples. Students are instructed in the operation of a total range of activities. For example, individual students may be involved in organizing, managing and operating mini companies as they are exposed to a set of experiences performed in shops and laboratories.

Activities are often self-contained, interdisciplinary and personal in nature. Experiences that can be realistically performed by students in simulated settings of the world of work are recommended. The teacher and student select, adapt and modify goals in the instructional program. The implementation of the activities described above comprises a new role for vocational education in grades 6-8. The differentiation between vocational education and general education as it relates to career goals is arbitrary and unnecessary.

Grades 9-10—Guidance Oriented Narrowed Exploration

A narrowed exploration in grades 9 and 10 is advocated because a great many decisions in these grade levels are still based on limited information and events. Although there should be considerable growth and readiness regarding vocational and career planning, the student needs an opportunity to narrow his exploration and focus the career goals and aspirations he has set for himself.

During these years, developmental concepts draw heavily from vocational guidance functions performed by the counselor and the teacher. Extensive guidance and counseling should assist the students in developing self awareness and matching interests and abilities with potential careers. The range of opportunities provided in the narrowed explorations should be on a continuum from the base established in career explorations in grades 6 through 8. Activities at this level should lead to specific skill-centered program offerings available to the students in grades 11, 12 and beyond.

The general objective in working with narrowed exploratory experiences would be to develop reasoning skills which include: (1) remembering; (2) problem solving, i.e., applying skills to new situations and developing a sequence of steps that will result in reaching a goal; (3) classifying; and (4) recognizing the relationship between things and their affect on one another. Another objective is to increase complexity levels of tasks with which students are able to work by (1) increasing the number of elements involved in a task, (2) increasing the complexity of the basic system of coding or analysis, (3) combining several processes that have been learned separately into one task, (4) applying a known process to new materials, and (5) recording an activity.

To be successful in today's complex world, a student who is exploring careers during grades 9 and 10 must develop techniques for learning that can be applied to a wide range of facts and experiences so he is not dependent on a relatively small body of knowledge as he moves into his area of specialization.

Grades 11-12–Skill Centered Preparation

A wide range of students will enter the skill-centered programs in grades 11 and 12. Although vocational educators know much about developing skill-centered competencies, there appears to be a dearth of knowledge about how to prepare programs for the disadvantaged and handicapped. Too often, discussions and presentations about how to provide skill-centered instruction for heterogeneous populations is taken for granted and avoided. The vocational role in grades 11 and 12 must be to develop employability skills as well as employment skills.

In skill-centered preparation, the exclusive preparation for work is expanded to include a base line education necessary for the individual to rake full advantage of the best occupational alternatives available to him. The student has a right to make decisions concerning increased educational opportunities and program alternatives open to him. The system must encourage students to make those decisions and to provide a coordinated continuum of program options to enable students to implement their decisions.

For articulation to occur in vocational programming, policy decisions and statement of objectives must assure that: (1) programs are meaningful for students, (2) programs utilize interdisciplinary content, (3) students can continue their education, (4) students have employment alternatives, and (5) program clusters lead to alternative career routes.

Grade 12 and Beyond–Intensified Guidance and Placement

Career education assumes the placement of all students on an entry-level job or in an institution to further their education. To accomplish this a sound working relationship between schools and communities must exist. The *Technical Education News* article, "Editorial–The Watchword is Career Education" (1972:2), reports:

> The goal is to give every student graduating from high school a marketable skill. This would not prevent those students who are able and inclined from continuing their studies at the post-secondary level, but it would assure that every high school graduate would be prepared in a job skill that would enable him to earn an immediate livelihood of his choosing.

Course content for programs can be modularized to allow a small segment to be combined for individually prescribed programs. By this method, heterogeneous student bodies can be accommodated and prepared with salable skills to enter the labor market.

Providing employability techniques is not viewed as a traumatic experience, but merely as a combination of a process of development that has gone on for a number of years. Placement is not terminal. It should not be considered as the final word in the student's interest, ability, skills or competencies. Initial employment may turn out to be permanent for some, for others a temporary pause, and for still others a springboard to the next stage of development and learning. Hard data derived from a student's performance over a number of years, superimposed over the soft criteria, such as personality, resourcefulness and responsiveness, begin to form a measure of a student's output and the aspirations and goals realistic for him as an individual.

Vocational education's role in career education focuses on responses to components of "student participation" and to identify "freedom to prescription" activities that respond to each of the eight (8) basic elements of career education. Major roles identified for vocational education are presented in the context of the major components of career education and in the major philosophical thinking about vocational program activities and their relevance to students (see the Appendix).

Critics of vocational education blame education for becoming "job oriented" and training students for jobs that soon disappear. Even though automation and cybernetics are transforming our working society, many students need short-range goals which may be realized in rather narrow specialities. Learners destined to face the working world must be flexible and have the ability to adapt what they have learned.

The concern of vocational educators should be directed toward preparing the learner for the immediate next step of his education. In the elementary school, it may mean associating a practical field experience with information provided in a reading lesson. In the senior high school, the next step may be transferring skills and knowledge learned in a shop or laboratory onto the job or into an advanced educational experience. Each learner must be advised of and receptive to the idea of the infiniteness of learning, the decision-making process and instilled with aspirations to contribute to society. The times demand that vocational educators be responsible to innovative ideas which better serve a significantly larger number of learners. Program emphasis must be placed on the learner and his individual performance expectations rather than on instructional content or categories of vocations. Then it can be said vocational education contributes to career education.

CAREER EDUCATION ACTIVITY
AND METHOD FOR VOCATIONAL EDUCATION

The entire question of the purpose of education being to develop responsibilities in individuals must be a major consideration of career educators. Education must be viewed as a process of providing instruction and experiences for individuals and not necessarily demanding they meet a predetermined set of standards.

Educators must decide how much freedom and how much responsibility they will give each individual student for determining his future and in educating himself to prepare for it. Career education fosters a philosophy eliminating rigid track systems of programs for slow learners, average learners and deep enrichment programs for fast learners. Instead, a flexible system designed to meet the individual needs for each student is advocated.

Too much of what we have been doing in education is based on assumptions that are no longer valid. Do students need a sense of control over their own destiny? Equality of educational opportunities is essential but it is even more important that education have relevance to real life for every student. Do we make the range of educational and occupational offerings as wide as the range of human abilities or do we believe that all students can "fit a mold"? These are all questions which must be asked if career education is designed to meet the need of every individual student.

For decades, a salute to many sacred cows has, in one way or another, reduced the effectiveness of education and hindered, if not prevented, many from reaching their capabilities. Career education attacks such sacred cows as: (1) closed end educational timetables, (2) discipline loyalties, (3) elitist attitudes regarding community involvement, (4) selected student participation, (5) singularly structured programs, and (6) traditional instructional content methodologies. Vocational educators also must be willing to give up sacred cows that they hold and accept new challenges and direction.

The implementation of alternatives in vocational education is not new. Alternative tracks have always been offered in vocational education but they have been too few and far between. Career education allows vocational educators to become more than skill developers. If there is direction to follow in career education, it can come from vocational education; yet vocational education has to be broadened to respond to the commitments being made in career education. This does not mean the abandonment of the school's fundamental purpose of education or the fundamental role and purpose of vocational education, which is providing performance-based competencies and skills at the senior high school level.

Career educators have decisions to make regarding the freedom the student has in choosing the elements of learning, the teacher, content, methodology, time and place. Education will be compelled to indicate in the curriculum what alternatives are available for the student. Likewise, vocational educators, if they are to be worthy of an equal part in career education, must be willing to look at alternatives offered within the public school setting, such as open schools, schools without walls, magnet centers, learning centers, educational parks, multi-cultural schools, bilingual schools, ethnic schools, street academies, dropout centers, schools within schools, integration models, and progressive schools.

School systems have been constantly moving from a classical type of subject orientation toward a life-adjustment philosophy presently being called career education. This seems appropriate when one views each student as an individual with varying abilities, interests and aptitudes.

Schools still cling to the Anglo-Saxon tradition of providing a cushion for real life situations that may hurt the self-image. This implies that the individual is not a responsible person and disregards the assumption that the individual must perceive his thoughts, needs, values and attitudes before he can change them. Many social institutions and the family itself, time and time again, refuse to let the individual steer his own course. Career education has a difficult task if it is to develop the image of the "responsible" person.

Self-perceptions of the individual can be aided greatly by a school system which is deeply interested in the student. Acceptance of each student will provide a means for communication and will enable the student to explore his needs, values, and feelings and say what he thinks. In this way, students will begin to respect their own hunches and attitudes and grow from within rather than through some external means.

The four basic elements out of which any learning experience takes place are: human resources, material resources, time, and space. Certainly they are all interrelated, but the most important one is human resources. Often felt and sometimes emphasized in school is the theory that human learning can take place by manipulating the external forces upon people, thus forcing them into a desired response. This may work with the environment, but not with human beings. The ultimate control and direction of behavior is from within the individual. Educational staff cannot change behavior nor perception for the child; they can only facilitate, encourage and assist him in such change. When this is understood, the discovery of personal meaning facilitates learning. Mistakes are expected, even welcomed sometimes, as this indicates that exploration is occurring from within the student. In education we need to facilitate freeing, expanding, and changing of perceptions for each individual.

The counseling specialist can do much for the guidance function in the school. He cannot, however, satisfy the need for individualization of education. Unique needs of the student will continue to be cared for by the teacher. This relegates a guidance function to the classroom teacher and places the counselor and other student personnel workers in consultant positions.

One can find key words running through the guidance literature today; this has implication for the vocational guidance role of vocational education. Expressive words such as "mutual trust," "concern for the individual," "understanding," "communication," and "acceptance" characterize the helping role of guidance in the public schools today. Many problems arise when the functions behind such words emerge and are tested. Overstreet (1949:45) might have had this in mind when he used a statement by Chisholm to sum up weakness in situations. "So far in the history of the world there have never been enough mature people in the right places." Such thinking does not advocate a return to the narrowly conceived idea of the 1930's, when it was felt that every teacher was a counselor and that no special service was needed. It is obvious that specialized vocational guidance counselors are necessary to adequately fulfill this function in the technological society of today.

Fantini's representation in Figure 5 (1973:448) illustrates "Alternatives on a Freedom to Prescription Continuum." The alternatives are "Free," "Open," "Modified," and "Standard." The continuum also designates the major focus in each type of alternative—"Learner," "Teacher," "Subject Matter," and "Institution."

The Free Alternative

Free activities emphasize individualized and personalized types of programs. Goldhammer and Taylor (1972:6) say: "Career education is a systematic attempt to increase the career options available to individuals and to facilitate more rational and valid career planning and preparation." The career horizon should be broadened. When implementing free programs, the viewpoint that individuals follow the course of least resistance in their career development is to be considered. The lack of structure, i.e., guidelines and prescription, encourages following the line of least resistance. It should also be noted that people follow the course that is most available to them and that which supports their needs and interests.

If the individual is given the opportunity to choose, by behaving and acting strictly on a sense of accomplishment and a feeling of doing something well, it is possible to move from a sense of inferior relationship with an environment to a sense of superior relationship to that environment. Some authors have suggested that students should be allowed to prepare for a society where their worth is dependent totally upon their productivity. In such a utopian

Free	Open	Modified	Standard
Learner-directed and controlled. Learner has complete freedom to orchestrate his own education. Teacher is one resource.	Learner has considerable freedom to choose from a wide range of content areas considered relevant by teacher, parent, student. Resource centers in major skill areas made available to learner.	Prescribed content is made more flexible through individualization of instruction; school is ungraded; students learn same thing but at different rates. Using team teaching. teachers plan a differentiated approach to the same content. Teacher and programmed course of study are the major sources of student learning.	Learner adheres to institution requirements uniformly prescribed: what is to be taught—how, when, where, and with whom. Teacher is instructor-evaluator. Student passes or fails according to normative standards.
Opening of school to the community and its resources.			
	Teacher is supportive guider.		
Noncompetitive environment.			
	Teacher-student planning.		Competitive environments.
No student failures. Curriculum is viewed as social system rather than as course of studies.			School is the major instructional setting.
Learner-centered.	Teacher-centered.		Subject-matter-centered. Institution-centered.

Figure 5. Alternatives on a Freedom-to-Prescription Continuum

world where worth is based solely on performance, perhaps "free activities" could be the best preparation. With any freedom components of a program, there must be clearly defined obligations and responsibilities on the part of all participants.

Learner Centered

Learner centered activities place significant weight on kindly, optimistic, responsive, understanding, democratic and adaptive educational philosophy. Problems that are used in the activities are sufficiently challenging to capture the interest of the students since many desirable courses of action are made easily available to the students. Course sequencing is based on developmental theories and knowledge about the transition decisions and action points in an individual's "learning career."

Learning centered activities advocate the child instead of the enterprise. As a result of the change in emphasis, activities become more realistic, and students can become more involved in activities that they consider realistic. It is imperative for educators to be aware that every student can be served and that every student has talents. Students are different, not necessarily inferior or superior. Learning centered activities have great respect for individuality and mutuality among members of the educational program.

The Open Alternative

The educational system designed in an open setting creates an environment for learning where learning is viewed in a quite different context. Often the school, the community and the world of work are involved. In the open system, youth receive assistance in determining what is relevant for them and what is educational. Yet the system for determining the direction does not become a sacred cow. The people it serves and the educators provide the momentum and direction. This includes students because their input is needed to determine the "rite of passage" from adolescence to adulthood and from school to work. The intent is to offer students more of a choice about what they will learn and how they will go about it. It can lead to a powerful new form of accountability.

Teacher Centered

In the teacher centered activities, the teacher identifies crisis points in the lives of a few students rather than working with the developmental needs and decision points in the life of the majority of students. Educators tend to equate success and worth with their own

academic accomplishments. Sometimes training in advanced degrees prevents teachers from working with the majority of students and assisting them in their career aspirations.

Schools, generally, are riddled with bias against vocational education at all levels and attempts at instilling career awareness. The teacher-centered activity approach is limited by the unawareness of how little the teacher can do unless the individual he is trying to help plays an active role in the process. Teacher-centered activity approaches run the danger of overwhelming students with the teacher's knowledge; this often results in confused and discouraged pupils. An approach which builds confidence and skill within a minimum educational period is needed.

The Modified Alternative

The interaction between the individual and his environment is an important element in the modified approach. Those involved in the interaction cannot pretend that a problem does not exist. Such a position on the part of anyone would be the surest way to destroy creditability. Methods involved encourage a resiliency with students where the individual's limitations are realized as well as his strengths. This approach is typified by N. H. Frank (1967:22) as he says:

> I propose that one should regroup the manifold components of technical education, using functional operations and processes to provide the guidelines for different curricula instead of organizing them as is presently done according to common techniques. In other words, we should prepare people to function in a group of operations all of which have a broad common theme, rather than train them for specific technical competence that finds application in almost every segment of industry.

In the modified activity approach, emphasis is on goals rather than on tools.

Subject Matter Centered

In career education, content is organized in such a way that it identifies the performance expected of the student rather than stating instructional goals in terms of subject matter. This is in keeping with the innovations recommended by this movement. It is particularly appropriate for vocational education because a number of people have observed that vocational education's method, rather than its content, may be its strength.

> This three-track system has long been the method for "differentiating" among the students enrolled in the public secondary school system. As a result, thousands, perhaps millions, of students are forced into curriculum tracks for which they feel little real aptitude or affiliation ("Editorial . . . ," 1972:2).

Schools should be interested in providing educational experiences for students which help students find fulfillment as human beings doing something they want to do. Providing an education that fulfills the individual as a human being is clearly a stated goal of career education. This thrust is in direct opposition to the subject matter centered approach which places the emphasis on content and not the individual.

The Standard Alternative

Standard approaches to education are characterized by educational programs built on a traditional lockstep basis. They do not provide outlets for modification and tend to force an individual to participate in a program which may not suit his characteristics. Standard activities are typified by a curriculum that is largely predetermined. The only real decision for the student is whether or not he decides to meet the school expectations.

Utilizing our present standard activities, the majority of students are not winners in this system. Some have said we tend to make schools a competitive race to the finish among students.

Institution Centered

In institution centered activities, programs are directed toward the average; if a child does not fit, it is his fault. Shimberg (n.d.:115) states: "They learn from experience that each day in school is likely to expose them to new failures and fresh humiliation."

Innovation in the public schools meets with great resistence and open hostility even though for the majority of students, school experiences provide a deadening effect. Osipow (1972:9 and 10) states " . . . it is also important that we pay attention to social systems, and design programs that recognize the influence of these factors." This line of thinking also emphasizes the need to help the individual discriminate between the points of control over his vocational life that do fall within his range and those which do not. By paying attention to social systems and designing programs that recognize this influence, the institutional centered programs tend to give way to innovation and to movements like career education.

CONCLUSIONS

Career education encourages the development of programs which allow students to be exposed to a vast occupational spectrum. Many of the social ills and manpower shortages will be solved when this is accomplished. The majority of people within their working life will be involved to some degree in applying the knowledge and skills they acquired during the elementary and secondary school process. Career education is being instituted to insure that individuals will be able to complete their education and receive job placement in line with competencies and skills they have been exposed to and have assimilated.

Policy making educators are expected to study the proposed roles of vocational education. The outcome of such an examination by local districts will be the identification of strengths and weaknesses of the present school systems. In turn, the process can lead to the development of strategies for implementing vocational education which complement the thrust of career education. To accomplish the task, policy makers must address problems rather than merely add more programs. A management/administrative rationale which eliminates duplication and fragmentation of disciplines should be paramount in the thinking from the outset.

Emphasis on career education during its infant stage may overemphasize the practical side in order to respond to the challenge of educating "all" and to insure a balance with the overemphasis which has been on the college preparatory program for many years. The techniques and methods of implementation should designate the vocational educator as a learning manager as he directs the student through a set of practical learning experiences at any grade level from K to 12 and beyond.

APPENDIX

Basic Elements of Career Education

EDUCATIONAL AWARENESS

Student Participation

1. Enables students to organize and use information, knowledge and skills learned in seeking practical solutions to real and everyday problems.
2. Philosophy resists the separation of individuals and earmarking them as either academically or vocationally oriented.
3. Fosters crossing traditional educational discipline lines and providing experiences that allow students to work with problems in making the transfers.
4. Objectives are stated in terms of experience rather than in terms of instructional content or subject matter.
5. Procedures estimate that half of a student's time will be spent in the library, in job-performance labs, or in other work areas where he can search for answers, analyze data and develop his conclusions in writing.
6. Encourages flexibility in program design; rigidity and closed-end courses are avoided.

Freedom to Prescription Activities

1. Support frequent reevaluation of objectives and results in changing of methods to meet newly-discovered objectives.
2. Encourage the implementation of teaching methods which fit the needs of the current student body and which change as educational research uncovers new and more effective ways of instructing.
3. Expand and contract to accommodate the specific interest and knowledge of the individual student to encourage investigation into other problems that increase an understanding of the concepts.
4. Utilize innovative instructional methods and materials that individualize the learning process and guide the student's learning from his vantage point.
5. Organize course content of the curriculum for each program in a modularized manner to allow small segments to be combined for individually prescribed programs.
6. Provide in-service training for teachers involving preparation to structure the curriculum, to implement programs, and to manage individualized instruction.

SELF AWARENESS

Student Participation

1. Provide a practical outlet for self-expression, creativity and projection into life in the future.

2. Encourage student awareness about alternative life styles that are open-ended and connected by links that foster upward mobility from cradle to grave.

3. Identify the abilities and learning styles of each individual.

4. Establish a value system for each individual that will provide him with the insight to make decisions and the flexibility to be tolerant of the wishes and desires of others.

5. Provide opportunities for students to seek out their own level by offering a wide range of programs in all fields.

6. Objectives emphasize that the student knows what new behavior he is expected to learn in any instructional activity.

Freedom to Prescription Activities

1. Encourage the teacher to enhance the structure by bringing imagination, creativity and guidance to the learning process in a unique way for each student.

2. Utilize an open enrollment concept that centers on providing many educational opportunities for students, plus experiences that encourage an interest in one or more occupational fields.

3. Base objectives on the teacher's sensitive understanding of the student's conceptual deficiencies and abilities.

4. Encourage teachers to accept students for what they are as well as where they are.

ATTITUDES AND APPRECIATIONS

Student Participation

1. Enable students to become motivated and emotionally involved in current, relevant social problems and issues.

2. Procedures prepare students with competencies to research and produce technological change; ability to control changes produced by others; and flexibility as individuals and as a society to adapt to change.

3. Foster meeting the student's basic needs of security through an understanding staff who provide short-range goals which motivate students to respond to their interests and needs.

Freedom to Prescription Activities

1. Insist on a dynamic course content that expands as technology expands.

2. Are dedicated to educating more than the elite of the intellectually curious.

3. Encourage experience with team teaching and the availability of new related teaching personnel, such as instructional assistants, teacher aides, laboratory assistants, industrial advisors and resource paraprofessional personnel of many types.

DECISION-MAKING SKILLS

Student Participation

1. Encourage experimentation with problems to which solutions have not yet been found.

2. Provide experiences in the practice of "organizing their thoughts."

3. Encourage decision-making that is primarily vested in students with counsel and guidance from the entire teaching team which provides continuity from initial experiences through entry and advanced levels of training.

4. Foster decisions concerning jump-off points that are not seen as traumatic or earth-shaking, but merely as the culmination of previous decisions.

Freedom to Prescription Activities

1. Allow teachers to serve as resource people who establish a learning environment for students to seek out alternatives and solutions to given problems.

2. Identify concepts which have more similarities than differences, regardless of how they are applied in reaching decisions surrounding practical problems.

3. Encourage teachers to utilize problem-solving, decision-making, and mathematical-model techniques to include these concepts in the instructional process.

4. Insist upon decisions, judgments and evaluations about abilities and potentials of students being made daily by teachers, counselors and students.

5. Foster the assignment of a student to a program at the starting level appropriate for him after information gained from a realistic survey of the area labor market has been assessed.

6. Encourage teachers to serve as resource persons who can guide learning without telling the student what to do at every step or insisting that the student learn a set of skills in a specified sequence.

ECONOMIC AWARENESS

Student Participation

1. Provide each student with information, skills and knowledge about the world in which he lives.

2. Enable students to realize the dignity associated with preparing for a salable skill in secondary schools as well as providing an educational program which allows students to continue their education.

Freedom to Prescription Activities

1. Foster concern for providing the country with skilled manpower and providing educational opportunities for all persons who desire to upgrade themselves and become contributing members of society.

2. Insist that both program and instruction must be flexible and frequently evaluated in light of changes in social and economic conditions.

ENTRY LEVEL COMPETENCY

Student Participation

1. Philosophy states that every student has a right to develop skills and competencies that lead to satisfactory job performance.

2. Involve students with concepts that are applicable to the rapidly expanding range of occupations, provide the intellectual skill to use these concepts and foster the ability and desire to develop new ones.

3. Encourage performance standards and expectations of students by generally and clearly defining entry-level jobs which are current with the business/industry community needs.

4. Utilize the explosion of cognitive information and the speed of psychomotor processing for forcing a re-evaluation of job preparedness and the ways and means through which it is achieved.

Freedom to Prescription Activities

1. Include the concepts of system analysis, stability, communication feedback in the course content.

2. Utilize physical facilities that respond to the purpose and content of the program which prepares the student with entry-level skills.

3. Accept the challenge of developing, implementing and managing programs which have the flexibility to serve the individual needs of each student and which develop his attainable skills to the highest degree.

4. Analyze job functions and utilize this information for clustering related bodies of knowledge and identifying educational experiences that develop competencies needed for entry-level employment.

EMPLOYABILITY SKILLS

Student Participation

1. Philosophy provides each individual with employment alternatives.

2. Goals encourage students to continue their education.

3. Provide educational experiences which develop "people relationships," enhance each individual's perception of the working world and encourage him to "feel good" about himself and the contributions he can make to society.

4. Objectives provide the environments for developing competencies which each student needs for acquiring vertical mobility and which enable him to create and achieve to the best of his ability.

5. Encourage employers to be influenced not by what students say they can do, but by what results students achieve.

Freedom to Prescription Activities

1. Individualize and modularize the structure because the content (specific skills and knowledge) is prescribed for reaching both short-term goals (modular units of instruction) and the long-term goals (employment).

2. Periodically evaluate performance standards demanded by employers, identify job options and ultimately assist the student and teacher in making decisions regarding realistic spin-off points.

3. Encourage the modification of rigid, blocked schedules in order to accomplish more broadly conceived educational objectives.

4. Provide a supervised work-study cooperative experience in business and industry to advance the student's total education and to initially have him perform well on the job.

CAREER AWARENESS

Student Participation

1. Is encouraged in program clusters that lead to alternative career routes.

2. Place program emphasis on the learner and his individual performance expectations rather than on instructional content, subject matter or categories of vocations.

Freedom to Prescription Activities

1. Encourage the meeting of science and technologies in interdisciplinary cooperation.

2. Encourage students to work together in common humanitarian, as well as technological, problems.

3. Foster growth in career awareness and view as a continuing process requiring a series of decisions.

4. Enhance through vertical scheduling techniques which enable students to move toward advanced or different experiences as they become ready.

BIBLIOGRAPHY[1]

"Career Education–A Model for Implementation." Working Paper. Washington, DC: U.S. Office of Education. n.d.

Crary, Ryland W. "Humanizing the School: Curriculum Development and Theory." *The Vocational Utilitarian Dimension.* (March, 1969).

"Deputy Commissioner Pierce Interprets Functions of New USOE Bureau." *American Vocational Journal.* Vol. 48, No. 2 (February, 1973), 26-27.

"Editorial–The Watchword is Career Education." *Technical Education News.* Vol. 31, No. 2 (April/May, 1972), 2-3.

Evans, Rupert N. *Foundations of Vocational Education.* The Merrill Series in Career Programs. Columbus: Charles E. Merrill Publishing Company. 1971. 292 pp. VT 017 116, MF available in VT-ERIC Set ED 075 668.

Fantini, Mario D. "Alternatives Within Public Schools." *Phi Delta Kappan.* Vol. 54, No. 7 (March, 1973), 444-48.

Frank, N. H. "Changing Requirements For Technical Education." *American Vocational Journal.* Vol. 42, No. 4 (April, 1967), 21-22.

Galbraith, John Kenneth. *The New Industrial State.* Boston: Houghton Mifflin Company. 1967. 427 pp.

Ginzberg, Eli. "Vocational Education Is Not the Answer." *Phi Delta Kappan.* Vol. 52, No. 6 (February, 1971), 369-71.

Goldhammer, Keith, and Taylor, Robert E. *Career Education: Perspective and Promise.* Columbus: Charles E. Merrill Publishing Company. 1972. 300 pp. ED 064 517, document not available from EDRS.

---

[1]Bibliographical entries followed by an ED number are generally available in hard copy or microfiche through the Educational Resources Information Center (ERIC). This availability is indicated by the abbreviations MF for microfiche and HC for hard copy. Order from ERIC Document Reproduction Service (EDRS), P.O. Drawer O, Bethesda, Maryland 20014. Payment must accompany orders totaling less than $10.00.

Herr, Edwin L. "Contributions of Career Development to Career Education." *Journal of Industrial Teacher Education.* Vol. 9, No. 3 (Spring, 1972), 5-14.

Hoyt, Kenneth B., et al. *Career Education. What It Is and How To Do It.* Salt Lake City: Olympus Publishing Company. 1972. 200 pp. ED 062 573, document not available from EDRS.

"Marland on Career Education." *American Education.* Vol. 7, No. 9 (November, 1971), 25-28.

Miller, A. J. "The Emerging School-Based Comprehensive Education Model." Paper presented at the National Conference On Career Education for Deans of Colleges of Education, Columbus, Ohio, April 24-26, 1972.

Morgan, Robert M., and Bushnell, David S. "Designing an Organic Curriculum." Working Paper. Washington, DC: Bureau of Research, U.S. Office of Education. n.d.

Olson, Jerry C. "Harnessing Vocational Education to Human Causes." *School Shop.* Vol. 29, No. 8 (April, 1970), 112-115, 132.

Osipow, Samuel H. "Implications For Career Education Of Research And Theory On Career Development." Paper presented at the National Conference on Career Education for Deans of Colleges of Education, Columbus, Ohio, April 24-26, 1972.

Overstreet, H. A. *The Mature Mind.* New York: W. W. Norton and Company, Incorporated. 1949. 295 pp.

Reinhart, Bruce. "Nature and Characteristics Of Emerging Career Education Curriculum." Paper presented at the National Conference on Career Education for Deans of Colleges of Education, Columbus, Ohio, April 24-26, 1972. 30 pp.

Shimberg, Benjamin. "Vocational Education: Is It More Than Education for a Vocation?" *Vocational Technical Education.* n.d.

"Task Force Report on Career Education." *American Vocational Journal.* Vol. 47, No. 1 (January, 1972), 12-14.

Wayson, William W. "Organizing Urban Schools for Responsible Education." *Phi Delta Kappan.* Vol. 52, No. 6 (February, 1971), 344-47.

Wells, Carl E. "Will Vocational Education Survive?" *Phi Delta Kappan.* Vol. 54, No. 6 (February, 1973), 369, 380.

White, Mary Alice. "Memo to a Future Superintendent." *Phi Delta Kappan.* Vol. 50, No. 10 (June, 1969), 595-97.

The mission of the ERIC CLEARINGHOUSE ON VOCATIONAL AND TECHNICAL EDUCATION is to acquire, process, and disseminate research and related information and instructional materials on vocational and technical education and related fields. It is linked to the Educational Resources Information Center (ERIC), the national information system for education.

PRODUCTS

The information in the ERIC system is made available to users through several information access products. Documents and journal articles are acquired, selected, abstracted, indexed, and prepared for announcement in these publications. The document's abstract can be read in the same ERIC publication in which it is indexed. The full text of announced documents is available from the original source or from the ERIC Document Reproduction Service (EDRS) in microfiche and hard copy form.

- ABSTRACTS OF INSTRUCTIONAL MATERIALS IN VOCATIONAL AND TECHNICAL EDUCATION (AIM), a quarterly publication, provides indexes to and abstracts of a variety of instructional materials intended primarily for teacher or student use.
- ABSTRACTS OF RESEARCH MATERIALS IN VOCATIONAL AND TECHNICAL EDUCATION (ARM) is published quarterly and provides indexes to and abstracts of research and related materials.
- COMPUTER TAPES of AIM and ARM contain resumes of over 6,000 documents on vocational and technical education that have not appeared in RIE.
- RESEARCH IN EDUCATION (RIE) and CURRENT INDEX TO JOURNALS IN EDUCATION (CIJE) are monthly publications. Many of the documents announced in AIM and ARM are also listed in RIE, the Central ERIC publication. Journal articles reviewed by the Clearinghouse are announced in CIJE, the CCM Corporation publication.

CAREER EDUCATION

A new project, the Supportive Information for the Comprehensive Career Education Model (SI/CCEM), is using the ERIC document base to provide information for the development of the Comprehensive Career Education Model (CCEM). In addition to using ERIC, the project staff is helping to acquire additional materials for CCEM. Many of these are being announced in AIM, ARM, and RIE.

INFORMATION ANALYSIS

The Clearinghouse engages in extensive information analysis activities designed to review, analyze, synthesize, and interpret the literature on topics of critical importance to vocational and technical education. Review and synthesis papers have been prepared on many problems or processes of interest to the entire field. Current emphasis is upon interpretation of major concepts in the literature for specific audiences. Recent career education publications have been developed that clarify and synthesize for program developers and decision-makers the theoretical, philosophical, and historical bases for career education.

USER SERVICES

In order to provide information on ways of utilizing effectively the ERIC document base, the Clearinghouse provides the following user services:

1. Information on the location of ERIC microfiche collections;
2. Information on how to order ERIC access products (AIM, ARM, RIE, and CIJE);
3. Bibliographies on timely vocational-technical and related topics such as (1) career education, (2) vocational education leadership development, (3) vocational education for disadvantaged groups, (4) correctional institutions, (5) cooperative vocational education, (6) information system for vocational decisions, and (7) management systems in vocational education;
4. Brochures describing ERIC operations and products;
5. Directing users to sources of information required for solving specific problems; and
6. Referral of requests to agencies that can provide special services.

YOUR INPUTS

Your comments, suggestions, and questions are always welcomed at the Clearinghouse. In addition, any documents you feel are beneficial to educators may be sent to the Clearinghouse for possible selection and inclusion into AIM, ARM, or RIE.

ERIC Clearinghouse on Vocational and Technical Education
1960 Kenny Road
Columbus, Ohio 43210

VT 020 367

DESCRIPTORS - *Career Education; *Vocational Education; Educational Principles; *Educational Strategies; *Relevance (Education); *Student Participation; Self Concept; Learning Experience; Skill Development.

IDENTIFIERS - *Comprehensive Career Education Model (CCEM).

ABSTRACT - In order to stimulate a position on career education, this paper identifies selected principles on which the majority of educators agree concerning the role of career education and proposes some general roles for vocational education. The focus is on the latter, with general rather than specific roles since variation will be evidenced in every school district. Career education demands strategy development and a commitment to deal effectively with basic problems in American education. As an approach, career education is comprehensive and encourages programmatic changes which are student-centered. In many ways, it draws together the varying aspects of the total educational program because it prepares the young people to learn to live productive and rewarding lives. The report discusses the purpose of career education, the role of vocational education elements of career/vocational education, student participation in vocational education, and career education activity and method for vocational education. The appendix details the elements of career education: educational awareness, self awareness, attitudes and appreciations, decision-making skills, economic awareness, entry level competency, employability skills, and career awareness. (Author/MF)